

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 06-214998

(43)Date of publication of application : 05.08.1994

(51)Int.Cl.

G06F 15/21

G05B 15/02

// B23Q 41/08

(21)Application number : 05-006679

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(22)Date of filing : 19.01.1993

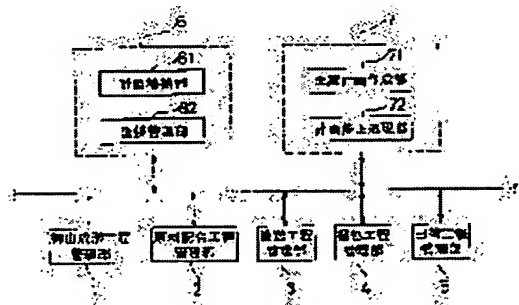
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(54) SYSTEM FOR MANAGING PRODUCTION PROCESS PROGRESS

(57)Abstract:

PURPOSE: To provide a system for managing production process procedure which provides the influence on the other processes when the plan for a process is changed.

CONSTITUTION: The system is provided with a plan storage section 61 storing the plan of processes such as formation, carrier, packing, and shipping which are mutually related by code numbers, progress management section 62 managing the progress of achievement for the plan in each process, and plan correcting processing section 72 retrieving the plan to be affected by the other process by means of the code number when the plan of an arbitrary



process is changed and correcting the production plan of all processes to be affected based on the progress state at the section 62 and the production plan prepared by the section 71.

CLAIMS

[Claim(s)]

[Claim 1] The managerial system of the production process had the forming cycle which fabricates according to production planning drawn up by the production-planning creation section characterized by to provide the following, the conveyance process which convey and keep the fabricated product in the warehouse for mechanism storage, the packing process which do packing work of the product taken out from the warehouse for mechanism storage, and keep to a product warehouse, and the shipment process which ship in a product from the aforementioned product warehouse according to daily order-received order The planned storing section which associates and stores the plan of each aforementioned process mutually by the code number The status-control section which performs the status control of an actual result to a plan within each aforementioned process The planned [to perform correction processing of production planning of all processes in which it is influenced, based on the progress situation in the aforementioned status-control section, and production planning drawn up by the aforementioned production-planning creation section, while searching a plan to be influenced at other processes by the aforementioned code number, when the plan of arbitrary processes is changed] correction processing section

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Industrial Application] In this invention, the forming cycle which fabricates according to production planning drawn up by the production-planning creation section, the conveyance process which convey and keep the fabricated product in the warehouse for mechanism storage, the packing process which does packing work of the product

taken out from the warehouse for mechanism storage, and keep to a product warehouse, and the shipment process which ship a product from the aforementioned product warehouse according to daily order-received order are related to the status-control system of the production process which it had.

[0002]

[Description of the Prior Art] For example, at the extrusion-molding works where the production process has separated at the process of how many step story The extrusion-molding process which performs extrusion molding according to production planning drawn up by the production-planning creation section, The raw material compounding operation which performs raw material combination of the main raw material, a pigment, etc., and the conveyance process which conveys and keeps the fabricated product in the warehouse for mechanism storage, It consists of a packing process which does the packing work of the product taken out from the warehouse for mechanism storage, and is kept to a product warehouse, and a shipment process which ships a product from the aforementioned product warehouse according to daily order-received order.

[0003] And since an extrusion-molding process is a main process also in it, these people have proposed the system which performs planned planning of this extrusion-molding process simple substance, actual result grasp, and a status control before (JP,4-199401,A).

[0004]

[Problem(s) to be Solved by the Invention] However, only by planned planning of an extrusion-molding process simple substance, actual result grasp, and the status control, when the sudden situation of the trouble and urgent order of an extruder occurred, influence of the process on others by planned change has not been held, but the problem that the optimal planned correction could not be made was left behind.

[0005] It is in offering the production process status-control system which enabled it to hold the influence of the process on others when this invention being made in view of this actual condition, and the purpose associating the plan of each process mutually, and changing the plan of a certain process for the actual result information on each process collection and by carrying out a centralized control.

[0006]

[Means for Solving the Problem] In order to solve the above-mentioned technical problem, the production process status-control system of this invention The forming cycle which fabricates according to production planning drawn up by the production-planning creation section, The conveyance process which conveys and

keeps the fabricated product in the warehouse for mechanism storage, and the packing process which does the packing work of the product taken out from the warehouse for mechanism storage, and is kept to a product warehouse, The planned storing section which is the managerial system of the production process equipped with the shipment process which ships a product from the aforementioned product warehouse according to daily order-received order, and associates and stores the plan of each aforementioned process mutually by the code number, When the status-control section which performs the status control of an actual result to a plan within each aforementioned process, and the plan of arbitrary processes are changed, while searching a plan to be influenced at other processes by the aforementioned code number It considers as the composition equipped with the planned [to perform correction processing of production planning of all processes in which it is influenced, based on the progress situation in the aforementioned status-control section, and production planning drawn up by the aforementioned production-planning creation section] correction processing section.

[0007]

[Function] In the production-planning creation section, production planning is drawn up by order-received prediction from operating selling information and the past shipment actual result. In the planned storing section, the plan of each process created by this production-planning creation section is mutually associated and stored by the code number.

[0008] Then, according to production planning drawn up by the production-planning creation section, it fabricates in a forming cycle, and at a conveyance process, the fabricated product is conveyed and kept in the warehouse for mechanism storage, by the packing process, the packing work of the product taken out from the warehouse for mechanism storage is done, it is kept to a product warehouse, and the product of the required number is shipped from a product warehouse at a shipment process according to daily order-received order.

[0009] In the status-control section, the status control of an actual result to the plan in each above-mentioned process is performed.

[0010] In management of such each process, when the plan of a forming cycle is changed by trouble generating of an extruding press machine, a plan to be influenced at other processes by planned change by the forming cycle is searched with the planned correction processing section by the code number added as an attribute of each plan, and all the plans to which each process corresponds are extracted. And the influenced plan of all processes is corrected based on the plan of the progress

situation of each process in the status-control section, and each process created by the production-planning creation section.

[0011] For example, correction processing of deleting the plan of other processes corresponding to a plan to have not been fabricated by the forming cycle by the trouble of an extruding press machine from each plan is performed.

[0012]

[Example] Hereafter, one example of this invention is explained with reference to a drawing.

[0013] Drawing 1 is the block diagram showing the electric composition of the production process status-control system of this invention.

[0014] The extrusion-molding process which performs extrusion molding according to production planning by which this production process status-control system was created by the production-planning creation section, The raw material compounding operation which performs raw material combination of the main raw material, a pigment, etc., and the conveyance process which conveys and keeps the fabricated product in the warehouse for mechanism storage, It is applied to the production process which has separated at the packing process which does the packing work of the product taken out from the warehouse for mechanism storage, and is kept to a product warehouse, and the shipment process which ships a product from a product warehouse according to daily order-received order. The sake, It is based on production planning. planning of an extrusion-molding plan It follows to the extrusion-molding production control section 1 to perform, the raw material compounding-operation Management Department 2 which draws up a raw material combination plan based on an extrusion-molding plan, the conveyance production control section 3 which draws up a conveyance plan based on an extrusion-molding plan, the packing production control section 4 which draws up a packing plan based on a conveyance plan, and daily order-received order. a shipment plan It has the composition that the section server 6 and the works host computer 7 which constitute the shipment production control section 5 which draws up, and the production process status-control system of this invention were mutually connected by the online network. The section server 6 has composition equipped with the status-control section 62 which performs the status control of an actual result to a plan within each process managed by the planned storing section 61 which associates and stores the plan of each production control sections 1-5 mutually by the code number, and each production control sections 1-5. Moreover, the production-planning creation section 71 as which the works host computer 7 draws up production planning

by order-received prediction from the shipment actual result of operating selling information and the past, When the plan of arbitrary processes is changed, while searching a plan to be influenced at other processes by the aforementioned code number It has composition equipped with the planned [to perform correction processing of production planning of all processes in which it is influenced, based on the progress situation in the status-control section 62, and production planning drawn up by the production-planning creation section 71] correction processing section 72. [0015] Drawing 2 shows an example of a plan at each above-mentioned process. Each plan is mutually associated by Plan No and the grasp of the influence of the following cases of it is attained so that drawing 2 may show. Namely, influence done to other processes at the time of applying interruption to an extrusion-molding process since it corresponds to (1) urgent order. (2) Influence done to other processes at the time of interrupting the plan of the present process since the trouble occurred at the extrusion-molding process.

[0016] (1) Influence done to other processes at the time of applying interruption to an extrusion-molding process since it corresponds to urgent order.

[0017] It is assumed that urgent order (order No=GXX1) occurred now.

[0018] At this time, it judges whether it can ship from the stock in the planned correction processing section 72 based on the inventory information first stored in the status-control section 62. Inventory information can judge whether it is stored in the status-control section 62 in the form of a lot number and a number, and there is any part [in stock] corresponding to order from the information.

[0019] Here, since it is fully, and stock can ship from the stock when it can ship, the planned correction processing section 72 does not correct a plan.

[0020] On the other hand, stock is inadequate, and when it cannot ship, production is newly needed about the product. Therefore, in the planned correction processing section 72, the lot of extrusion plan No=BXX1 performed newly is wedged into the degree of extrusion plan No=B001 under present fabrication. Consequently, it is the plan of the process which has this extrusion plan No=B001 as an attribute, next the plan corresponding to extrusion plan No=BXX1 is made to interrupt at other processes.

[0021] Drawing 3 shows the result into which the plan corresponding to extrusion plan No=BXX1 was wedged in other processes.

[0022] Namely, at a raw material compounding operation, combination plan No=CXX1 corresponding to extrusion plan No=BXX1 is wedged into the degree of combination plan No=C001, by the conveyance process, conveyance plan No=DXX1 corresponding

to extrusion plan No=BXX1 and DXX2 are wedged into the degree of conveyance plan No=D003, and packing plan No=EXX1 corresponding to extrusion plan No=BXX1 and EXX1 are wedged into the degree of packing plan No=E003 at a packing process.

[0023] Materials (a man, raw material, etc.) required for each process (raw material combination, conveyance, packing) over the process made to interrupt can judge whether the plan of each changed process is realizable by registering with the section server 6 as a database in that case.

[0024] And when it can realize, fabrication is continued after following the plan after the correction.

[0025] On the other hand, when the corrected plan is unrealizable, the planned correction processing section 72 carries down and wedges into the degree of extrusion plan No=B002 the lot of extrusion plan No=BXX1 performed newly. And at other processes, it is the plan of the process which has extrusion plan No=B002 as an attribute, next the plan corresponding to extrusion plan No=BXX1 is wedged, and it judges again whether it is realizable in the corrected plan like the above.

[0026] In the planned correction processing section 72, they are performed until it judges [that it is realizable and] the above processings, and the optimal planned correction is made.

[0027] (2) Influence done to other processes at the time of interrupting the plan of the present process since the trouble occurred at the extrusion-molding process.

[0028] Suppose that production was interrupted by trouble generating of the lot under present fabrication (extrusion plan No=B001).

[0029] While canceling extrusion plan No=B001 interrupted for the planned correction processing section 72 from an extrusion plan at this time, this trouble is coped with by canceling the plan under which each future process corresponds. That is, the planned correction processing section 72 can be judged by canceling extrusion plan No=B001 by searching a plan being influenced at other processes by the code number (extrusion plan No=B001) added as an attribute of each plan.

[0030] Namely, at a raw material compounding operation, combination plan No=C001 corresponding to extrusion plan No=B001 is canceled, and by the conveyance process, conveyance plan No=D001 corresponding to extrusion plan No=B001, and D002 and D003 are canceled, and packing plan No=E001 corresponding to extrusion plan No=B001, and E002 and E003 are canceled at a packing process.

[0031] Then, since it is expected that it becomes impossible for the product of a shipment schedule to ship according to this trouble as influence by the canceled plan, the following checks are performed in the planned correction processing section 72.

[0032] That is, since it can cover with the stock when there is less sum total of the same amount of the order of a lot number as the canceled lot than the present inventory, the state by the trouble which cannot be shipped is avoidable for the time being. Therefore, correction of a plan is not made in this case.

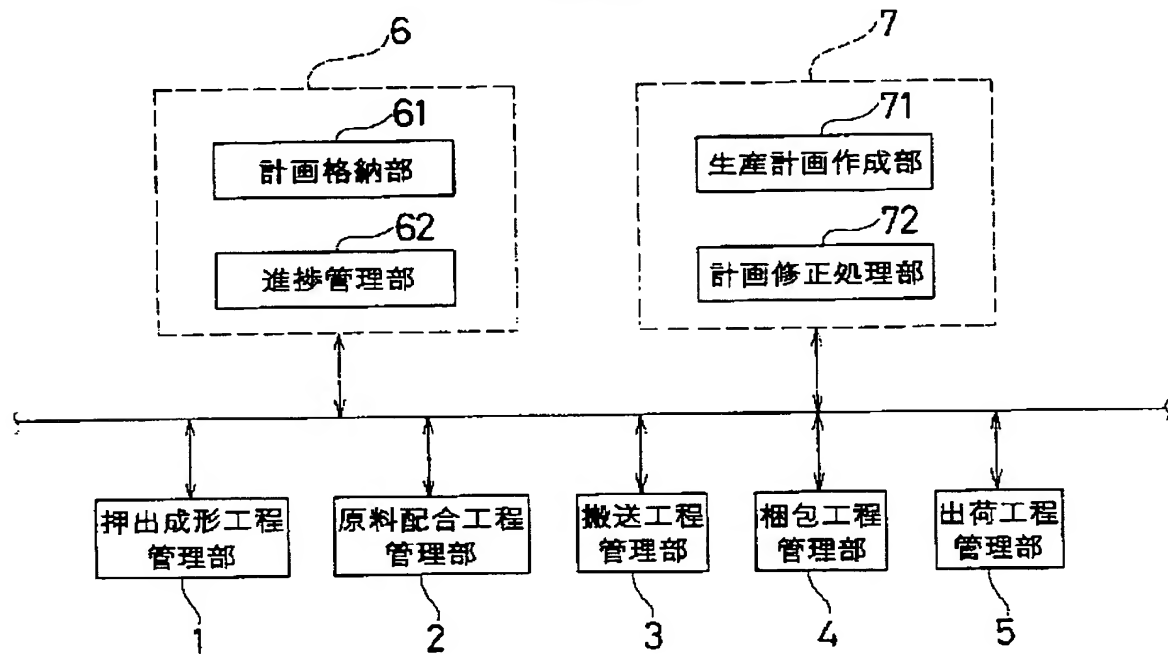
[0033] On the other hand, since it cannot cover depending on the stock when there is more sum total of the same amount of the order of a lot number as the canceled lot than the present inventory, the state by the trouble which cannot be shipped occurs. Therefore, what is necessary is for the same procedure as the case of the urgent order of the above (1) just to perform the procedure of the planned correction at this time, although correction of a plan is needed in this case. However, after the lot number used as the trouble considers the conditions which become again producible, it is necessary to determine the interruption stage of a correction lot.

[0034]

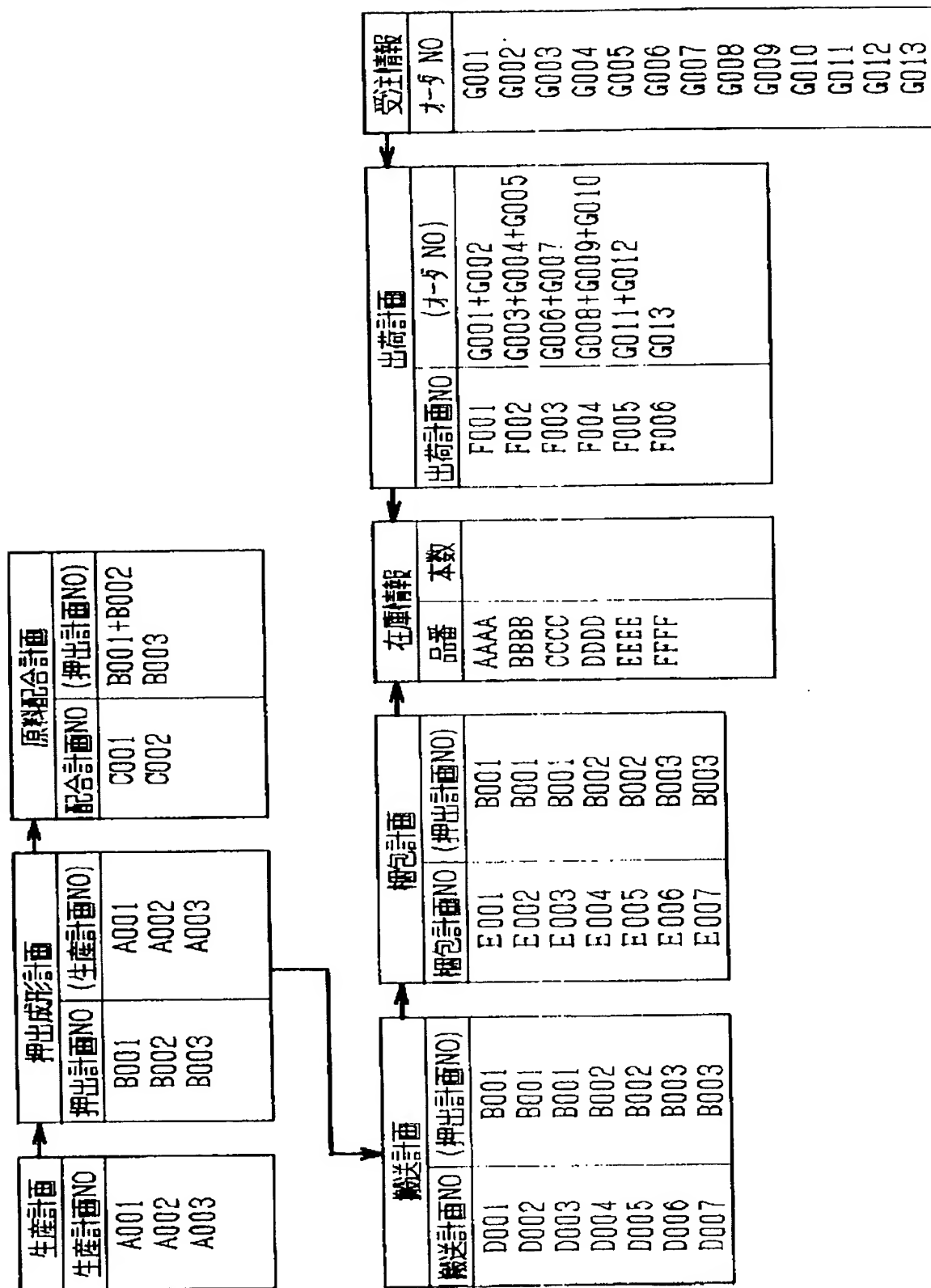
[Effect of the Invention] The planned storing section which the production process status-control system of this invention associates the plan of each process mutually by the code number, and is stored, When the status-control section which performs the status control of an actual result to a plan within each process, and the plan of arbitrary processes are changed, while searching a plan to be influenced at other processes by the aforementioned code number As composition equipped with the planned [to perform correction processing of production planning of all processes in which it is influenced, based on the progress situation in the status-control section and production planning drawn up by the production-planning creation section] correction processing section, while associating the plan of each process mutually Since the influence of the process on others at the time of changing the plan of a certain process for the actual result information on each process collection and by carrying out a centralized control can be held certainly, the effect that the plan which can be carried out is promptly correctable is done so.

DRAWINGS

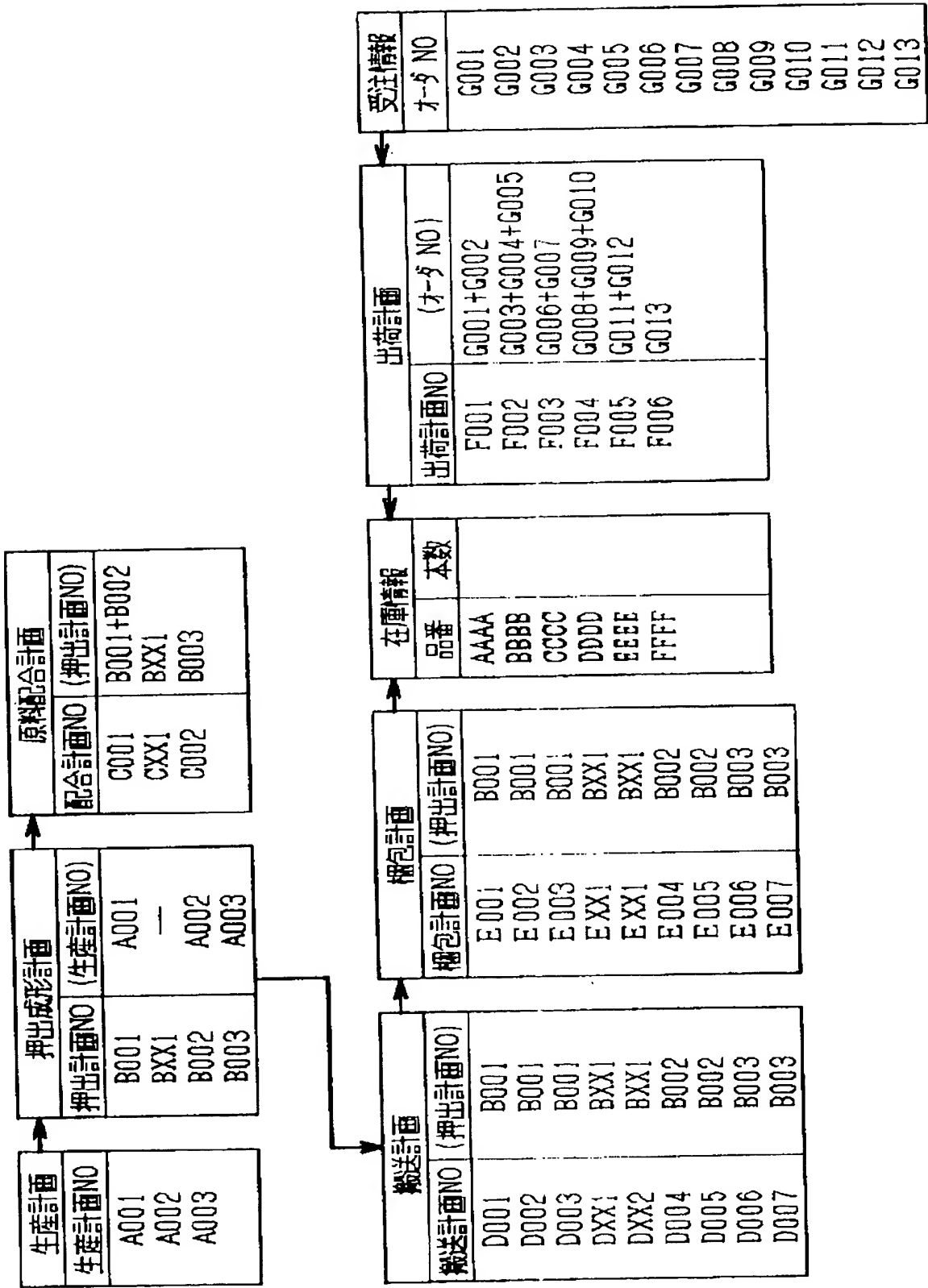
[Drawing 1]



[Drawing 2]



[Drawing 3]



DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the block diagram showing the electric composition of the production process status-control system of this invention.

[Drawing 2] It is the table showing an example of the plan of each process mutually associated by the code number.

[Drawing 3] It is the table showing the result which wedged the generated urgent order into the plan of each process.

[Description of Notations]

61 Planned Storing Section

62 Status-Control Section

71 Production-Planning Creation Section

72 Planned Correction Processing Section